

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A polymer composition comprising: a co-polymer comprising at least a first and a second monomer, wherein the first monomer comprises glycolic acid, and wherein the second monomer comprises a bioresorbable monomer, or a functional derivative of said co-polymer;
wherein the polymer composition is in the form of an oriented fiber or filament;
wherein the polymer composition has a tensile strength of at least 1100 MPa; and
wherein the polymer composition has a tensile modulus of at least 20 GPa.
2. (Previously Presented) The polymer composition of claim 1, wherein the polymer composition comprises a blend of the co-polymer and at least one other polymer.
3. (Previously Presented) The polymer composition of claim 1, wherein the second monomer comprises polylactic acid.
4. (Previously Presented) The polymer composition of claim 3, wherein the second monomer comprises poly L-lactic acid.
5. (Previously Presented) The polymer composition of claim 1, wherein the polymer composition comprises at least 70% glycolic acid.
6. (Previously Presented) The polymer composition of claim 5, wherein the polymer composition comprises at least 75% glycolic acid.
7. (Previously Presented) The polymer composition of claim 6, wherein the polymer composition comprises about 95% glycolic acid.

8. (Previously Presented) The polymer composition of claim 6, wherein the polymer composition comprises about 98% glycolic acid.

9. (Cancelled)

10. (Cancelled)

11. (Previously Presented) The polymer composition of claim 1, wherein the polymer composition has a tensile modulus of at least 21GPa.

12. (Previously Presented) The polymer composition of claim 11, wherein the polymer composition has a tensile modulus of at least 22GPa.

13. (Previously Presented) A process for the manufacture of the polymer composition of claim 1, comprising:

- a) forming a polymer composition into fibers, wherein the polymer composition comprises a co-polymer comprising a first and a second monomer, wherein the first monomer comprises glycolic acid, and wherein the second monomer comprises a bioresorbable monomer, or a functional derivative of the co-polymer;
- b) quenching the fibers; and
- c) drawing a localized region of the fibers by subjecting the quenched fibers to a tension.

14. (Previously Presented) The process of claim 13, wherein forming the polymer composition into fibers comprises melt extruding or solution spinning the polymer composition.

15. (Previously Presented) The process of claim 13, wherein drawing a defined region of the fibers further comprises zone-heating the fibers.

16. (Previously Presented) The process of claim 13, wherein drawing a defined region of the fibers comprises at least two separate drawing steps.

17. (Previously Presented) An article comprising at least one polymer composition, wherein the at least one polymer composition comprises the polymer composition of claim 1.

18. (Previously Presented) The article of claim 17, wherein the at least one polymer composition further comprises at least a second polymer composition.

19. (Previously Presented) The article of claim 17, wherein the article comprises 10% to 80% by volume of the polymer composition.

20. (Previously Presented) The article of claim 18, wherein the second polymer composition comprises at least one bioresorbable polymer.

21. (Previously Presented) The article of claim 20, wherein the bioresorbable polymer comprises a poly-hydroxy acid, a poly-lactic acid, a poly-caprolactone, a poly-acetal or a poly-anhydride.

22. (Previously Presented) The article of claim 18, wherein the second polymer composition comprises at least one non-bioresorbable polymer component.

23. (Previously Presented) The article of claim 22, wherein the at least one non-bioresorbable polymer component comprises poly-propylene, poly-ethylene, poly-methyl methacrylate or epoxy resin.

24. (Previously Presented) The article of claim 17, further comprising at least one non-polymeric component.

25. (Previously Presented) The article of claim 24, wherein the at least one non-polymeric component comprises a ceramic, hydroxyapatite or tricalcium phosphate.

26. (Previously Presented) The article of claim 24, wherein the at least one non-polymeric component comprises a bioactive component.

27. (Previously Presented) The article of claim 26, wherein the bioactive component comprises a natural or engineered protein, a ribonucleic acid, a deoxyribonucleic acid, a growth factor, a cytokine, an angiogenic factor or an antibody.

28. (Previously Presented) The article of claim 17, wherein the article comprises a medical device.

29. (Previously Presented) The article of claim 28, wherein the medical device comprises a suture, a scaffold for tissue engineering or implantation, an orthopaedics implant, a complex shaped device or a bone fixation device.

30. (Previously Presented) A process for manufacturing an article comprising the polymer composition of claim 1, the process comprising:

- a) placing the polymer composition into a mold;
- b) adding to the polymer composition a component selected from the group consisting of polymers, bioresorbable polymers, non-polymeric components, and combinations thereof to the polymer composition; and
- c) compression molding to the desired shape.

31. (Previously Presented) A process for manufacturing an article comprising the polymer composition of claim 1, the process comprising:

- a) combining the polymer composition of claim 1 with at least one monomer or other precursor; and
- b) curing the at least one monomer or other precursor in situ.

32. (Previously Presented) The process of claim 30, wherein adding a component selected from the group consisting of polymers, bioresorbable polymers, non-polymeric components, and combinations thereof to the polymer composition is carried out prior to placing the polymer composition into the mold.

33. (Canceled)

34. (Canceled)

35. (Previously Presented) The process of claim 31, wherein curing the monomer or other precursor in situ does not comprise liberating a by-product on polymerization.

36. (Previously Presented) The process of claim 31, wherein curing the monomer or other precursor in situ comprises a ring opening reaction that forms a poly hydroxyl acid.

37. (Previously Presented) The process of claim 36, wherein combining the polymer composition with at least one monomer or precursor comprises combining the polymer composition with at least one monomer comprising a lactide, a glycolide, a caprolactone, a carbonate or mixtures thereof.

38. (Previously Presented) An article comprising at least one polymer composition, wherein the at least one polymer composition comprises a polymer composition, or the functional derivative thereof produced by the process of claim 13.

39. (Previously Presented) The article of claim 38 wherein the at least one polymer composition further comprises at least a second polymer composition.
40. (Previously Presented) The article of claim 38, wherein the article comprises 10% to 80% by volume of the polymer composition or the functional derivative thereof.
41. (Previously Presented) The article of claim 38, wherein at least one of the polymer composition or the second polymer composition is a bioresorbable polymer.
42. (Previously Presented) The article of claim 41, wherein the bioresorbable polymer comprises a poly-hydroxy acid, a poly-lactic acid, a poly-caprolactone, a poly-acetal or a poly-anhydride.
43. (Previously Presented) The article of claim 38, further comprising at least one non-bioresorbable polymer component.
44. (Previously Presented) The article of claim 43, wherein the at least one non-bioresorbable polymer component comprises poly-propylene, poly-ethylene, poly-methyl methacrylate or epoxy resin.
45. (Previously Presented) The article of claim 38 further comprising at least one non-polymeric component.
46. (Previously Presented) The article of claim 45, wherein the at least one non-polymeric component comprises a ceramic, hydroxyapatite or tricalcium phosphate.
47. (Previously Presented) The article of claim 45, wherein the at least one non-polymeric component comprises a bioactive component.

48. (Previously Presented) The article of claim 47, wherein the bioactive component comprises a natural or engineered protein, a ribonucleic acid, a deoxyribonucleic acid, a growth factor, a cytokine, an angiogenic factor or an antibody.

49. (Previously Presented) The article of claim 38, wherein the article comprises a medical device.

50. (Previously Presented) The article of claim 49, wherein the medical device comprises a suture, a scaffold for tissue engineering or implantation, an orthopaedics implant, a complex shaped device or a bone fixation device.

51. (Previously Presented) A process for the manufacture of the article of claim 38, the process comprising:

- a) placing the polymer composition or functional derivative thereof into a mold;
- b) adding to the polymer composition a component selected from the group consisting of polymers, bioresorbable polymers, non-polymeric components, and combinations thereof; and
- c) compression molding to the desired shape.

52. (Previously Presented) A process for the manufacture of the article of claim 38, the process comprising:

- a) combining the polymer composition or functional derivative thereof with at least one monomer or other precursor; and
- b) curing the at least one monomer or other precursor in situ.

53. (Previously Presented) The process of claim 51, wherein adding a component selected from the group consisting of polymers, bioresorbable polymers, non-polymeric

components, and combinations thereof to the polymer composition is carried out prior to placing the polymer composition into the mold.

54. (Cancelled)

55. (Cancelled)

56. (Previously Presented) The process of claim 52, wherein curing the monomer or other precursor in situ does not comprise liberating a by-product on polymerization.

57. (Previously Presented) The process of claim 52, wherein curing the monomer or other precursor in situ comprises a ring opening reaction that forms a poly hydroxyl acid.

58. (Previously Presented) The process of claim 52, wherein combining the polymer composition with at least one monomer or precursor comprises combining the polymer composition with at least one monomer comprising a lactide, a glycolide, a caprolactone, a carbonate or mixtures thereof.